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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,919	01/15/2004	David Michael Toth	71,024-003	5120

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EXAMINER

MITCHELL, KATHERINE W

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/757,919	Applicant(s) TOTH ET AL.	
	Examiner Katherine W. Mitchell	Art Unit 3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 January 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 6 and 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 8-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 1/15/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attach/Ent(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/15/2004</u> | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Election/Restrictions***

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

Species 1 - sealing surface with hydrodynamic aids along entire length

Species 2 - sealing surface with hydrodynamic aids at one end only

Species 1 - sealing surface with no hydrodynamic aids or grooves

Species 1 - sealing surface with hydrodynamic aids at one end only and protuberances at opposite side of same end.

2. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Applicant should advise if any claims are generic, but it appears claim 1 is generic.

3. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

4. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims

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are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

5. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

6. A telephone call was made to Robert Stearns on 8/2/2005 to request an oral election to the above restriction requirement, and a followup call by Mr. Stearns elected Figs 1-2, claims 1-5 and 8-15 with traverse.

7. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

8. Claims 6-7 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply

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by phone on 8/4/2005. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Objections***

9. Claim 8 is objected to because of the following informalities: Line 2, --and-- is missing before "second portion". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 is objected to because "concentric" is unclear. Concentric with respect to what? Radially, linearly?? How are they concentric? Examiner does not understand the claim.

con·cen·tric (kən-sĕn'trĭk) also con·cen·tri·cal (-trĭ-kəl) *adjective*  
Having a common center. <sup>1</sup>

### ***Claim Rejections - 35 USC § 102***

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12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

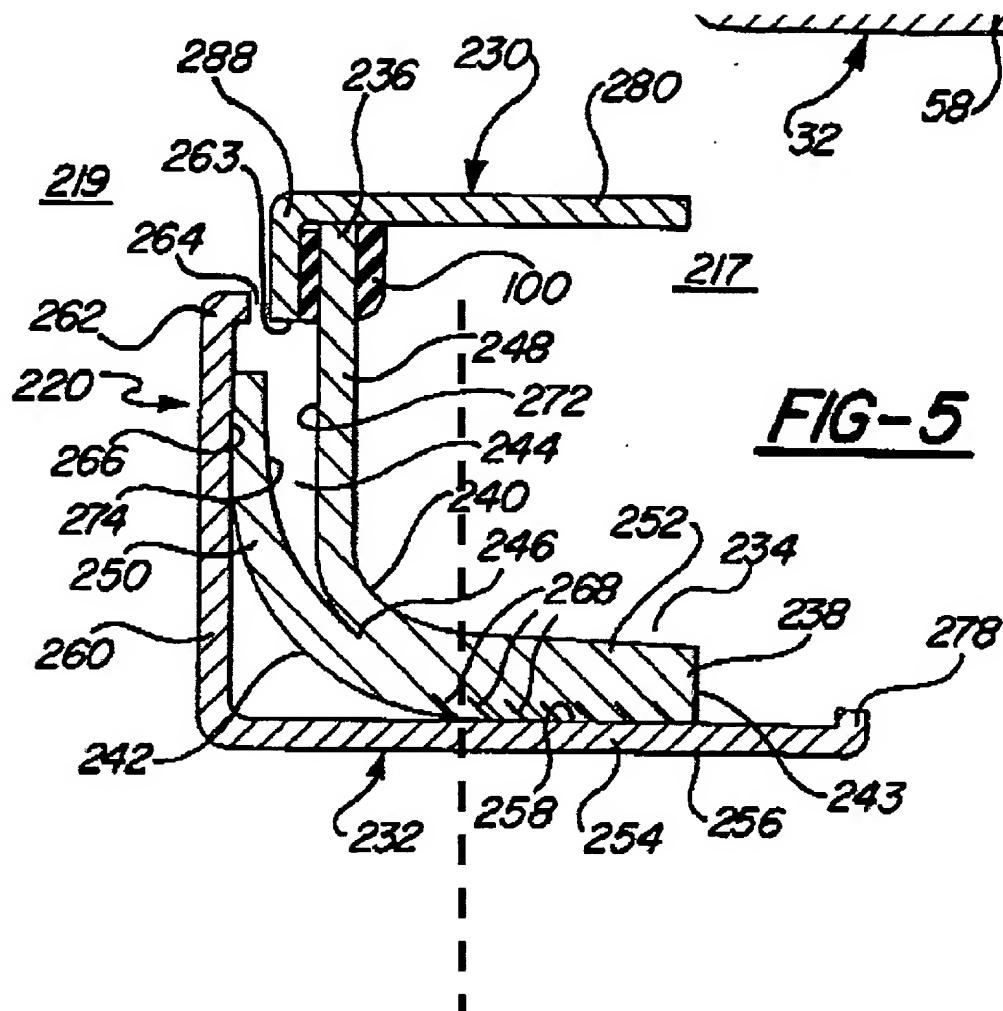
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1-5,8,10-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Tripathy USP 6149158.

Re claims 1,10, 12,13: Tripathy teaches a seal assembly (Fig 5) comprising

- A rigid carrier 230
- An annular support member 100 engaged with carrier having a lip (see Fig 5) defining an annular supporting surface
- A seal 234 having a 1<sup>st</sup> collar 248 (see dashed line by examiner showing end of 1<sup>st</sup> collar portion and beginning of 2<sup>nd</sup> collar portion in Figure 5 below) connected to said supporting surface and a 2<sup>nd</sup> collar portion 252 extending past said supporting surface and defining a 2<sup>nd</sup> sealing surface.

Further Re claim 10,12,13: a wear sleeve 232 is shown. Col 3 lines 29-67 describe the relationships of the wear sleeve with a rotatable shaft. The carrier 230 is shown as tubular (it would inherently encircle the shaft, thus tubular) and concentric w.r.t. the wear sleeve, and has a radial flange (portion labeled 288 to 264), per col 4 lines 18-37 (describing Fig 4 but corresponding numbers are used in Fig 5 but with “200” prefix - i.e., “63” is “263” in Fig 5, etc.). PTFE seal is in col 3 lines 51-57.



Further Re claim 12: Fig 5 where the examiner drew the dashed line is considered the annular living hinge, as there is a pivoting flexibility at that point - it is where the contact with 254 is first made.

Re claim 2: Fig 5 shows the 1<sup>st</sup> sealing surface concentric w.r.t. said supporting surface.

Re claim 3: The method of making is not germane to the apparatus. 1<sup>st</sup> and 2<sup>nd</sup> collars are capable of being integrally formed. The method of forming the device is not

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germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

Re claim 4: Col 6 lines 22-35 teach that annular support member 100 can be made of rubber.

Re claim 5: Hydrodynamic features 258 are shown on 1<sup>st</sup> and 2<sup>nd</sup> sealing surfaces in Fig 5.

Re claims 8 and 11: Fig 5 where the examiner drew the dashed line is considered the annular living hinge, as there is a pivoting flexibility at that point - it is where the contact with 254 is first made.

Re claim 15: Fig 5 shows 1<sup>st</sup> and 2<sup>nd</sup> collars and living hinge defining sealing surfaces.

***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tripathy USP 6149158 in view of common knowledge in the art, as evidenced by Japp USP 5833136 and Brandt USP 5556112. As discussed above, Tripathy USP 6149158 teaches all the elements except that the annular living hinge is a notch. Examiner takes Official Notice that it is well known that a notch or groove in a planar material is useful in promoting bending at a particular point (the hinge pivot point), as evidenced by Japp, col 4 lines



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21-27: "The transverse grooves act to increase the bending ability of the traction assist strip (in the manner of hinges living hinges)". Brandt teaches that notches or grooves are used in flexible seals to allow enhanced bending at a particular point. Japp <sup>and Brandt are</sup> ~~is~~ being cited as evidence that grooves and notches are well known as functioning as **living hinges**, rather than take Official Notice, with supporting documentation. Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Tripathy USP 6149158, Japp USP 5833136 and Brandt USP 5556112 before him at the time the invention was made, to modify Tripathy as taught by Japp and Brandt to include grooves or notches used as a living hinge, in order to obtain increased flexibility. Increased flexibility at a specific point, to act as a hinge, would allow increased sealing and prevent splitting or cracking at the pivot point.

### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W. Mitchell whose telephone number is 571-272-7069. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Katherine W Mitchell  
Examiner  
Art Unit 3677

Kwm  
8/5/2005

A handwritten signature in black ink, appearing to read 'K Mitchell', written in a cursive style.